

CLAIMS**WHAT IS CLAIMED:**

1. An apparatus, comprising:
5 a first power supply adapted to provide a first portion of power;
a second power supply adapted to provide a second portion of power; and
a power distribution network, wherein the power distribution network is adapted to direct the first portion of power and the second portion of power to a first split path adapted to transmit signals in a system.
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2. The apparatus of claim 1, wherein the power distribution network comprises a first capacitor network comprising at least one capacitor coupled to the first split path and adapted to store the portion of power provided by the first power supply for a selected duration.
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3. The apparatus of claim 2, wherein the power distribution network comprises a second capacitor network comprising at least one capacitor coupled to the first split path and adapted to store the portion of power provided by the second power supply for a selected duration.
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4. The apparatus of claim 3, wherein the first capacitor network and the second capacitor network are coupled in a current sharing design to substantially provide redundant power to the first split path, reducing the chance that a malfunction in one power supply will introduce errors into signals transmitted along the first split path and compromise the function of the system.
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5. The apparatus of claim 3, wherein the first capacitor network and the second capacitor network are coupled at a switch that substantially provides redundant power to the first split path, reducing the chance that a malfunction in one power supply will introduce errors into signals transmitted along the first split path and compromise the function of the system.

6. The apparatus of claim 1, further comprising an environmental system monitoring demon (ESMD) adapted to detect malfunctions in the first and second power supplies.

7. The apparatus of claim 6, wherein the ESMD is adapted to send a notification to a system control unit in response to detecting a malfunction in at least one of the first and second power supplies.

8. The apparatus of claim 7, wherein the ESMD is adapted to instruct the system control unit to attempt to reconfigure the at least one malfunctioning power supply.

9. The apparatus of claim 1, further comprising a third and a fourth power supply adapted to provide redundant power to a second split path through the distribution network.

10. An apparatus, comprising:
a first redundant source of power adapted to provide power to a first split path;
and

a second redundant source of power adapted to provide power to a second split path, wherein the first and second split paths are adapted to transmit signals.

11. The apparatus of claim 10, wherein the first and second split paths are adapted to allow signals to be transmitted in parallel.

12. The apparatus of claim 10, wherein the first redundant source of power comprises a first and a second power supply adapted to provide a first and a second portion of power to the first split path.

13. The apparatus of claim 10, wherein the second redundant source of power comprises a third and a fourth power supply adapted to provide a third and a fourth portion of power to the second split path.

14. The apparatus of claim 10, further comprising an environmental system monitoring demon (ESMD) adapted to detect malfunctions in at least one of the first, the second, the third and the fourth power supplies.

15. The apparatus of claim 14, wherein the ESMD is adapted to instruct the system control unit to transmit messages along the second split path if the first split path becomes substantially unable to transmit messages because the first and second power supplies become substantially unable to provide power to the first split path.

16. The apparatus of claim 15, wherein the ESMD is adapted to instruct the system control unit to transmit messages along the first split path if the second split

path becomes substantially unable to transmit messages because the third and fourth power supplies become substantially unable to provide power to the second split path.

17. A method, comprising:

5 providing a redundant source of power to a first split path, wherein the first split path is adapted to transmit signals in a system; and
 managing the redundant source of power.

10 18. The method of claim 17, wherein providing a redundant source of power comprises providing a first and a second portion of power from a first and a second power supply coupled to the first split path.

15 19. The method of claim 18, wherein coupling the first and the second power supplies to the first split path comprises coupling the first and the second power supplies to a current sharing power distribution network that is coupled to the first split path.

20 20. The method of claim 18, wherein coupling the first and the second power supplies to the first path comprises coupling the first and the second power supplies to a switched power distribution network that is coupled to the first split path.

25 21. The method of claim 17, wherein managing the first and second power supplies comprises determining if at least one of the first and second power supplies is malfunctioning.

22. The method of claim 21, wherein determining if the first and second power supplies are malfunctioning comprises collecting environmental data from the first and second power supplies and processing the data with a software package.

5 23. The method of claim 22, wherein managing the first and second power supplies further comprises taking an action if at least one of the first and second power supplies is malfunctioning.

10 24. The method of claim 23, wherein taking an action comprises sending a notification to a system control unit.

15 25. The method of claim 24, wherein taking an action further comprises instructing the system control unit to attempt to reconfigure the at least one malfunctioning power supply.

26. The method of claim 25, wherein reconfiguring the at least one malfunctioning power supply comprises turning off the power supply for a selected duration.

20 27. The method of claim 17, further comprising providing a second redundant source of power to a second split path.

25 28. A method, comprising:
providing a first redundant source of power to a first split path;
providing a second redundant source of power to a second split path, wherein
the first and the second split paths are adapted to transmit signals; and

managing the first and the second redundant sources of power.

29. The method of claim 28, wherein the first and second split paths are adapted to allow signals to be transmitted in parallel.

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30. The method of claim 28, wherein providing a first redundant source of power comprises providing a first and a second portion of power from a first and a second power supply coupled to the first split path.

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31. The method of claim 28, wherein providing a second redundant source of power comprises providing a third and a fourth portion of power from a third and a fourth power supply coupled to the second split path.

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32. The method of claim 28, wherein managing the first and second redundant power supplies comprises determining if the first, second, third, and fourth power supplies are malfunctioning.

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33. The method of claim 32, wherein managing further comprises instructing the system to transmit messages along the first split path if the second split path becomes substantially unable to transmit messages because the third and the fourth power supplies become substantially unable to provide power to the second split path.

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34. The method of claim 33, wherein taking an action further comprises instructing the system to transmit messages along the second split path if the first split

path becomes substantially unable to transmit messages because the first and second power supplies become substantially unable to provide power to the first split path.

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